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Fig. 5 is a side view, and shews the hollow on the bar *n* in which the little finger slides: it is made so smooth that the little finger slides on it as easily as on the paper; and the wrist-holder *q*, covered with velvet above, moves so freely in the groove *p* that the hand does not feel any resistance; this support and the sliding of the little finger ensures straight writing, and equal distances between the lines are obtained by means of the rack.

No. II.

DOUBLE OFFSET PLOTTING SCALE.

The SILVER MEDAL was presented to Mr. JAMES G. AUSTIN, 36 Grafton Street, Gower Street, for his Offset Plotting Scale for the use of Civil Engineers and Surveyors; a Drawing of which has been deposited with the Society.

36 Grafton Street, Gower Street,
GENTLEMEN, 7th March, 1840.

ACCOMPANYING I beg leave to bring before your notice my invention of a mathematical instrument (which I have designated as a "Double Offset Plotting Scale"), for the use of civil engineers and land-surveyors, with a view to facilitate the plotting of every kind of survey, and to ensure the greatest possible accuracy; and I am proud to add, that it has met with the unqualified approbation

of every professional gentleman to whom I have submitted it, some of whom very kindly attested their approval by the accompanying certificates long before I had contemplated using their kindness to strengthen my claim to your patronage; and who, I have no doubt, will, with many others, among whom I may mention Messrs. Stephenson, Burgess, Brunel, &c. &c., give your honourable committee additional testimony of its usefulness should it be deemed necessary.

I beg leave to observe, that it is my intention to give the public the full benefit of the above invention; and should you be disposed to consider it as deserving of any notice or reward, I shall be happy in attending to your commands of further explanation of its use and advantages.

I am, Gentlemen, &c. &c.

To the President, &c.

JAMES G. AUSTIN.

of the Society of Arts, &c.

The Double Offset Plotting Scale consists of two perfectly parallel graduated scales, whose distance is equal to the length of the offset scale which runs on rollers between them. The parallel scales and the offset scale are graduated to suit the views of the user. The pieces connecting the ends of the double scale are hollowed out to receive weights, armed with points to enter the paper, which hold the instrument in its place, and prevent its being shifted while in use; and from the centre of each of these connecting pieces projects an index; the points of these indices and the zero of the offset scale being always in the same straight line, which is, of course, the line from which the offsets are to be measured.